ABSTRACT

There is provided a valve actuation linkage mechanism for use in an internal combustion engine that reduces friction wear on the valve assembly during engine operation and can be preassembled to reduce manufacturing time and costs. The valve actuation linkage mechanism comprises a rocker arm having a pivot rod cup, a pivot rod, a valve bridge having a pivot rod chamber, and a pivot rod retainer. The pivot rod comprises a pivot rod head, a pivot rod neck, a pivot rod body, and a pivot rod bottom. The valve bridge comprises a middle valve bridge section having the pivot rod chamber and a pair of pivot rod retainer securing bore, a bottom valve bridge section, and a lubricant dimple in the pivot rod chamber. The pivot rod retainer is comprised of a pivot rod orifice having pivot rod prongs and at least one securing orifice.